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Introducing Contemporary Methods of Knowledge Diagnostics and Control

One of the reasons of the gaps in students' knowledge is monitoring absence of program material mastering. Its basic function (ensuring feedback link of educational activities of teachers and students) monitoring can perform under condition of obtaining objective, timely information concerning material learning with simultaneous revealing disadvantages in students' knowledge. Therefore, the problem concerning instrumentation choice to carry out monitoring of students' knowledge quality is an urgent one.

As a result of scientific and theoretical analyses concerning control problems the most optimal platform for creating automated online control system of material understanding with open initial code Moodle was chosen. This system was built to work as Web-system to test students' knowledge. Step-by-step technology of automated control the main purpose of which was increasing quality of material understanding due to learner realization, educative and advanced potential of given control type was designed on the basis of postulator approach and taking into account literature analysis concerning considered problem.

Designed technology was checked out during research and experimental study on the university base. The aim of this study was revealing degree of technology influence on following criterion of quality training: the level of material understanding, quality of knowledge, skills and experience, training motivation, cognitive students' activity and level of maturity of professional competence.

Statistic analysis of data obtained during experiment gave mathematical confirmation of significance of positive changes of such criteria of training quality as level of material understanding, competence quality, and cognitive activity.

Positive changes in students' motivation structure were pointed out. Motives connected with practical application of accepted knowledge in professional activity are of great value. Therefore, in the course of research and experimental investigations goals were reached and task of study were solved. This educational experiment, in its turn, confirmed hypothesis concerning real quality of education by implementation of scientifically based step-by-step technology of automated control.

However, it should be noted that this system of checking knowledge is suitable for distant learning. But it is impossible to exclude teaching staff.

Unthinking application of electronic test systems can lead in the future to uprising specialists incapable to carry out investigations without any help.